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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,419	10/10/2000	Guojun Zhou	042390.P9908	5003

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EXAMINER	
AZAD, ABUL K	

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/685,419	ZHOU, GUOJUN	
	Examiner	Art Unit	
	ABUL K. AZAD	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5,7-13,15,17,19-27,29,30,32,33,35 and 39-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5,7-13,15,17,19-27,29,30,32,33,35 and 39-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on August 9, 2004.

2. Claims 1, 3, 5, 7-13, 15, 17, 19-27, 29, 30, 32, 33, 35 and 39-42 are pending in this action. Claims 2, 4, 6, 14, 16, 18, 28, 31, 34 and 36-38 have been canceled.

3. The applicant's arguments and declaration under 37 C.F.R. 1.132 with respect to claims 1, 3, 5, 7-13, 15, 17, 19-27, 29, 30, 32, 33, 35 and 39-42 have been fully considered but they are not deemed to be persuasive. For examiner's response to the applicant's arguments or comments, see the detailed discussion in the Response to the Arguments section.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3, 5, 7-10, 12, 13, 15, 17, 19-22, 25-27, 29-30, 33, 35 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua et al. (US 6,324,512) in view of Cohen et al. (EP 1 014 277) further in view of Nosohara (EP 0 838 765).

As per claim 1, Junqua teaches, "a method of interfacing to a system comprising"

"receiving speech input data from a user" (col. 2, lines 52-61, user's spoken instruction);

"converting the speech input data into a first text in the identified language by recognizing the user's speech in the speech input data based at least in part on the language identifier" (col. 2, lines 52-61, reads on "the user spoken instructions are converted into text by speech recognizer");

"parsing the first text to extract keywords" (col. 2, lines 52-61, parser);

"using the keywords as a command to an application" (col. 3, lines 9-17, reads on "if the use's instruction is sufficiently refined to constitute a command, the unified access controller sends a control command to the digital tuner");

"receiving results to the command" (col. 3, lines 1-31, reply as the results);

"converting the results into a second text with a prosodic pattern according to the identified language spoken by the user; and rendering the second text for perception by the user" (col. 3, lines 1-17, reads on "converts text queries into synthesized speech", text to speech conversion inherently involves a prosodic pattern).

Junqua does not explicitly teach, automatically summarizing the result. It is well-known in the art that automatically summarizing the results as acknowledges by the applicant at page 9, lines 9-16. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to automatically summarize the search results because one ordinary skill would readily recognize the convenience of providing a easy understandable summarized search results instead of providing whole content of search results.

Junqua does not teach, "identifying a language spoken by the user from the speech input data". However, Cohen teaches, "identifying a language spoken by the user from the speech input data" (col. 3, line 56 to col.8, language recognition/identification). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to identify a language spoken by user as Cohen teaches so that a language identification is achieved for enhancing the speech recognition process from a plurality of languages (col. 2, lines 15-19).

Junqua and Cohen do not teaches: "automatically translating the keywords into a plurality of automatically selected languages other than the identified language and using the translated keywords a search query to a search engine."

However, Nosohara teaches, "translating the keywords into a plurality of automatically selected languages other than the identified language and using the translated keywords a search query to a search engine, wherein the results comprises search results from the search engine operating on the search query" (col. 3, lines 6-22, reads on "translate the keyword input by searcher into another language used in the document to be searched"). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Nosohara's teaching so that optimum search result is obtained from a variety of databases of different languages using translation of the keyword and display the search results by translating back to original language for user convenience (col. 1, lines 8-15).

As per claims 13, 15 and 25-26, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 1 and 3.

As per claim 3, Junqua teaches, "rendering comprises converting the second text into speech and rendering the speech to the user" (col. 3, lines 1-31, reads on "the unified access controller then sends a text message (second text) to the speech synthesizer, which, in turn, synthesizes a spoken reply").

As per claim 5, Junqua teaches, "using the keywords as a search query to at least one search engine, wherein the results comprises search results from the at least one search engine operating on the search query" (col. 3, lines 1-31).

As per claims 7 and 8, Junqua and Cohen do not teaches: "automatically translating the keywords into a plurality of automatically selected languages other than the identified language and using the translated keywords a search query to a search engine, wherein the results comprises search results from the search engine operating on the search query."

"automatically translating search result in languages other than the identified language to the identified language".

However, Nosohara teaches, "translating the keywords into a plurality of automatically selected languages other than the identified language and using the translated keywords a search query to a search engine, wherein the results comprises search results from the search engine operating on the search query" (col. 3, lines 6-22, reads on "translate the keyword input by searcher into another language used in the document to be searched");

"translating search result in languages other than the identified language to the identified language" (col. 3, lines 6-22; translate the documents stored in the search result storage means to the designated language).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Nosohara's teaching so that optimum search result is obtained from a verity of database using translation of the keyword.

As per claims 19, 20 and 27, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 7 and 8 above.

As per claim 9, Junqua teaches, "the application comprises a web browser" (web browser is inherent because here uses TCP/IP protocols for Internet access, see at col. 3, lines 41-48).

As per claim 10, Junqua teaches, "wherein the web browser interfaces with a search engine and command comprises a search query" (col. 3, lines 1-48, queries).

As per claims 17, 21-22 and 29-30, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 5 and 9-10.

As per claim 12 and 24, Junqua teaches, "wherein the speech comprises conversational speech" (col. 4, lines 35-51, here uses a natural language as conversational speech).

As per claim 33 and 35, they are interpreted and thus rejected for the same reasons set forth in the rejection of claim 36.

As per claims 39-42, Junqua teaches, "wherein the prosodic pattern is capable of making the sencond text sound natural and grammatically correct" (col. 3, lines 1-8).

6. Claims 11, 23 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua in view of Cohen as applied to claims 9, 21 and 29 above, and further in view of Well known prior art (MPEP 2144.03).

As per claims 11, 23, and 32, Junqua and Cohen do not teaches, "the web browser interfaces with a shopping web site and command comprises at least one of purchase order and a request for product information". Official Notice is taken on shopping web browser. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a shopping web browser so that it would be convenient to use shopping web browser using speech command.

Response to Arguments

7. The applicant argues at page 11 of the response as "In rejecting independent claims 1, 13, 25, and 33, the Examiner asserted that automatic summarization is well-known in the art simply based on a reference cited in the specification of the above-identified application. This is an incorrect assertion. Automatic summarization is an advanced research area, especially for automatically summarizing search results from the Internet that usually include multiple documents. Although research progress in the past couple of years has made automatic summarization of search results from the Internet feasible in some circumstances, there is still much improvement to be solved by continuing research activities. Therefore, it is clearly an error to assert that automatic summarization of search results from the Internet is well-known in the art, as supported by the declaration from Dr. Yonghong Yan. Because the automatic summarization

element is not well-known as asserted by the Examiner, and because Junqua, Cohen, and Nosohara, alone or in combination, do not teach or suggest this element as claimed, independent claims 1, 13, 25, and 33 are allowable".

The examine disagrees with the applicant's assertion because applicant acknowledges at specification of the invention page 9, lines 9-16 that the applicant implemented one of the known automatic summarization techniques. The applicant did not describe in the specification or claimed an advanced automatic summarization technique. The examiner agrees that the automatic summarization is an advanced research area and there is still much improvement to be solved by continuing research activities. However, the applicant failed to describe or claim any improvement over the conventional automatic summarization.

Following is a case law that how a claim language is interpreted "during patent examination, the pending claims must be given the broadest reasonable interpretation consistent with the specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Prater, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969)".

8. The applicant argues at page 12 of the response as, "in the Office Action dated May 5, 2004, the Examiner asserted that prosodic pattern is inherent in any text to speech conversion. This is incorrect. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior ad." Ex parte Levy, 17 USPQ2d 1461, 1464. Here the

Examiner did not fulfill his burden. As supported by the declaration from Dr. Yonghong Yan, adding a prosodic pattern has been a research topic in speech synthesis area for many years. Few speech synthesis systems could produce natural-sounding speech before 2000 because they lacked processing of a prosodic pattern. During the past 3-4 years, many speech synthesis systems have started to use prosodic pattern processing to generate more natural sounding speech than before for an input text. However, prosodic continuing research topic in the speech synthesis area. Therefore, the assertion that prosodic pattern is inherent in any text-to-speech conversion at the time of invention cannot be supported by any fact basis or technical reasoning. Nor is this element taught or suggested by any of the prior art references cited by the Examiner. Because prosodic pattern is not inherent in any text-to-speech conversion or taught or suggested by any of the cited prior art references, independent claims (claims 1, 13, 25, and 33) reciting this prosodic pattern element are thus allowable".

The examiner disagrees with the applicant's assertion because prosodic pattern is inherent in text to speech synthesis process. The examiner submitted following references as support, Holmes (speech synthesis and recognition, 1988, Chapman & hall), pages 6-7 and US Patent 3,704,345. Holmes define pitch, duration and intensity is collectively known as prosodic feature. The synthesized or natural speech necessarily contains at least different values of pitch, duration and intensity; no speech can be produced without these elements. The examiner agrees, "adding a prosodic pattern has been a research topic in speech synthesis area for many years. During the past 3-4 years, many speech synthesis systems have started to use prosodic pattern processing

to generate more natural sounding speech than before for an input text. However, prosodic continuing research topic in the speech synthesis area." However, the applicant does not describe in the specification or in the claim that an improved natural sounding speech is produced by using certain prosodic parameter over the conventional text-to-speech conversion system. Therefore, claimed limitation is not limited to whether a robotic speech or natural human speech is produced by the prosodic parameter.

9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation or suggestion is found either in the reference or in the knowledge generally available to one of ordinary skill in the art to combine these references. Motivation or suggestion are as follows:

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to automatically summarize the search results because one ordinary skill would readily recognize the convenience of providing a easy understandable summarized search results instead of providing whole content of search results.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to identify a language spoken by user as Cohen teaches so that a language identification is achieved for enhancing the speech recognition process from a plurality of languages (Cohen, col. 2, lines 15-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Nosohara's teaching so that optimum search result is obtained from a variety of databases of different languages using translation of the keyword and display the search results by translating back to original language for user convenience (col. 1, lines 8-15).

10. The applicant further argues at page 15, as "a prima facie case of obviousness, there must also be a reasonable expectation of success, which must be found in the prior art references. MPEP 2143. As stated by Dr. Yan in the attached declaration, technologies in speech and natural language processing field were previously not sophisticated enough to make possible a Language independent voice-based search system, as described in the above-identified application. Furthermore, prior to the date of invention the speed of computing systems was not high enough to make it possible for the claimed search system to work in real-time. Either Junqua or Cohen or Nosohara is limited to a simple application which then-existing technologies could support. No possibility of success can be found in either reference for combining them together to come up with a complex search system as claimed in the above-identified application".

In response to applicant's above argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

11. The applicant further argues at page 15, as "third, to establish a prima facie case of obviousness, "the prior art reference (or references when they combined) must teach or suggest all the claim limitations." MPEP 2143. Here, all of the limitations of independent claims 1, 13, 25, and 33 have not been fully evaluated because neither Junqua nor Cohen nor Nosohara nor well-known arts, alone or in combination, suggest every limitation set forth in the above-identified claims. For instance, as presented above, none of the cited references, alone or in combination, teaches or suggests the automatic summarization element and the prosodic pattern element. Therefore, the prior art references do not teach or suggest all the claim limitations in claims 1, 13, 25, and 33".

The examiner disagrees with applicant's above assertion because Junqua, Cohen, Nosohara and well-known art, in combination, teach and suggest every limitation set forth in the above-identified claims (see claims rejection and above examiner's response to applicant's arguments). Well-known prior art teaches automatic summarization and a prosodic pattern is inherent in a text-to-speech conversion system

as discussed in the section 7 and 8 above at the response to applicant's arguments. Therefore, the prior art references do teach or suggest all the claim limitations in claims 1, 13, 25, and 33.

12. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Therefore, applicant's arguments are not deemed to be persuasive.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(703) 305-3838.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(703) 305-9645.**

Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

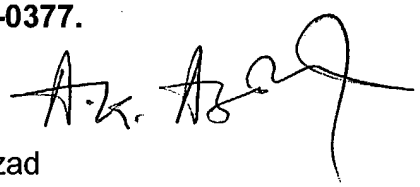
Or faxed to:

(703) 872-9314

(For informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center's Customer Service Office at telephone number **(703) 306-0377.**



Abul K. Azad

November 23, 2004